

Application S/N 10/806,644  
 Amendment Dated: September 16, 2005  
 Response to Office Action dated: May 19, 2005

CE12694JME

# **REMARKS/ARGUMENTS**

Claims 1-17 remain pending in the application. In the Office Action, claim 13 was objected to because of a lack of antecedent basis for several terms. Applicant has amended claim 13 to overcome the objection. In addition, claims 1, 2, 7, 9, 11, 12, 13, 16 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,411,199 to Suppelsa, et al. (Suppelsa) in view of U.S. Patent No. 5,945,735 to Economikos, et al. (Ekonomikos). Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Suppelsa in view of Economikos and further in view of U.S. Patent No. 5,620,927 to Lee (Lee), and claims 4-6, 10, 14 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Suppelsa in view of Economikos and further in view of U.S. Patent No. 5,346,118 to Degani, et al. (Degani). Finally, claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Suppelsa in view of Economikos and further in view of U.S. Patent No. 5,167,361 to Liebman, et al. (Liebman).

A brief summary of the Suppelsa and Economikos references may be helpful here. Suppelsa discloses a method for attaching a shield to an electronic assembly having a heat sink. In the method, the shield is formed by disposing solder onto all the inner walls of the shield, preferably before the shield is cut and stamped into shape (see Col. 2, lines 7-10). Once formed, the shield is press fit to a heat sink having a substrate attached to it (see Col. 3, lines 18-20). The assembly is then reflowed to allow for the solder, which is cladded onto the inner walls of the shield, to flow and cover the joints between the shield and the heat sink, which allows for a good EMI/RFI seal between the shield and the heat sink (see col. 3, lines 20-25 and lines 31-34).

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Economikos describes a process for hermetically sealing of a high thermally conductive substrate through the use of a low thermally conductive interposer. The novel thermal interposer basically comprises of layers of relatively high thermal conductive metallic materials sandwiching a core layer of low thermal conductive metallic material (see the abstract). As part of the process, a thermal interposer core and a solder/braze layer are formed over a metallic seal band, which is formed at the outer periphery of a substrate (see Col. 4, lines 7-34).

Independent claims 1 and 9 have been amended to clarify that reflowing the substrate simultaneously provides solder joints for the components and a selectively solder cladded area over the conductive shield track. Support for the amendments can be found in paragraphs 0024 and 0025 and in FIGs. 2-6. No new matter has been added in view of these amendments. Neither Suppelsa nor Economikos, nor any of the other cited references, disclose, mention, illustrate or even suggest such a concept.

Moreover, Applicant contends that there is simply no motivation to combine Economikos with Suppelsa. In particular, in Suppelsa, all the inner walls of the shield are solder cladded, and when the assembly is reflowed, the solder helps form seals between the substrate and the shield. Because the inner walls are solder cladded, after reflow, "a good EMI/RFI seal is formed between the shield 102 and the heat sink 110" (see Col. 3, lines 31-34). Placing a shield track on the substrate in Suppelsa is completely unnecessary because the cladding on the inner walls of the shield produces a satisfactory seal. The shield track would merely add an unnecessary step to the process of attaching the shield to the substrate in Suppelsa. As such, Applicant submits

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that it would not be obvious for one of skill in the art to combine the Suppelsa and Economikos references.

In view of the above, Applicant believes that independent claims 1, 9, 13 and 17 are patentable over the prior art. Applicant also believes that those claims that depend from independent claims 1, 9, 13 and 17 are patentable, both based on their dependencies on the independent claims and their patentability on their own. Reconsideration and withdrawal of the rejection of the claims is respectfully requested. Passing of this case is now believed to be in order, and a Notice of Allowance is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

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The Commissioner is hereby authorized to charge any necessary fee, or credit any overpayment, to Motorola, Inc. Deposit Account No. 50-2117.

Respectfully submitted,

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